

DATA ANALYSIS TECHNIQUES FOR DYNAMIC POWER SIMULATION OF A CPU

Abstract

A method for data analysis of power modeling for a microprocessor has been developed. The method takes multiple values of power data from a power modeling simulator and generates summary data to characterize the power data behavior. Summary data views include results characterizing behavior in a single cycle and behavior across multiple cycles. Data is viewed both at an absolute level to characterize total power and relative to previous levels to characterize power derivatives. Summary data is derived from power generated every cycle when running specific benchmark programs on the power simulator.

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